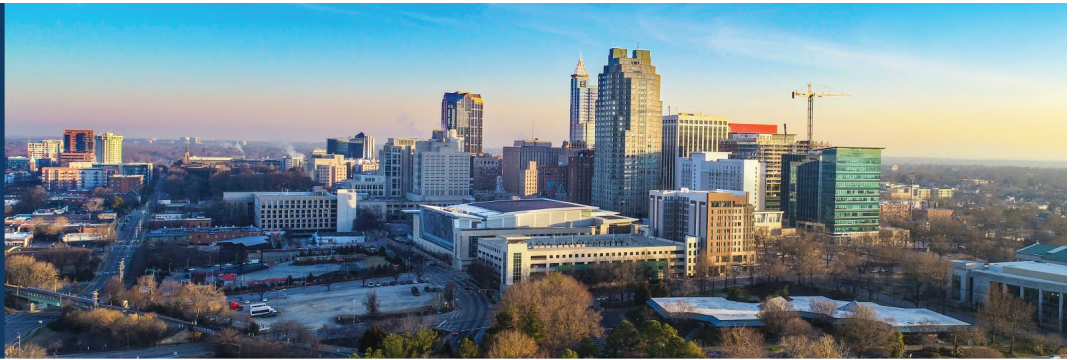


# Manager's Update

[raleighnc.gov](http://raleighnc.gov)



Issue 2021-45

December 3, 2021

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## INFORMATION:

### Regular Council Meeting Tuesday, December 7 - Afternoon and Evening Sessions

Reminder that Council will meet next **Tuesday** in regularly scheduled sessions at **1:00 P.M.** and **7:00 P.M.**  
The agenda for the meeting was published on Thursday:

<https://go.boarddocs.com/nc/raleigh/Board.nsf>

**Reminder:** If there is an item you would like to have pulled from the consent agenda for discussion, please send an e-mail [mayorstaff@raleighnc.gov](mailto:mayorstaff@raleighnc.gov) by 11 A.M. on the day of the meeting.

**You will be receiving information on joining the WebEx Events session on Monday; staff will be available to assist with log ins and joining the virtual City Council meeting.**

### Floodplain Creative Education Installation – Alluvial Decoder

*Staff Resources:* Wayne Miles, Engineering Services, 996-3964, [wayne.miles@raleighnc.gov](mailto:wayne.miles@raleighnc.gov)  
Kelly McChesney, Raleigh Arts, 996-5657, [kelly.mcchesney@raleighnc.gov](mailto:kelly.mcchesney@raleighnc.gov)

The Stormwater Management division has partnered with Raleigh Arts to design and install a creative education installation to engage and educate community members on the importance of floodplain management. The display includes a mural as well as color-coded "storm poles" designating the elevations of historic floods at the location of the display.

A soft opening of the installation will be held Saturday, December 11 from 1-3 pm. Attendees will have a chance to spread wildflower seeds as part of creating a native stormwater meadow. Creative Designers William Belcher, Lincoln Hancock, and William Dodge as well as City staff involved in the project will be on-site to answer questions and talk about the piece, which is named Alluvial Decoder. The installation is located on the Greenway adjacent to Crabtree Creek near the intersection of Crabtree Valley Avenue and Blue Ridge Road. Please feel free to bike or walk to (and through!) the installation. Parking is limited.

Learn more about the Floodplain Creative Education Installation and the opening event on the City [website here](#).

(No attachment)

### **Weekly Digest of Special Events**

Staff Resource: Sarah Heinsohn, Special Events Office, 996-2200, [sarah.heinsohn@raleighnc.gov](mailto:sarah.heinsohn@raleighnc.gov)

Included with the *Update* materials is the special events digest for the upcoming week.

(Attachment)

## Council Member Follow Up Items

### Follow Up from the November 2 City Council Meeting

#### **Neighborhood & Community Connections to Parks; District Equity Comparison (Council Member Cox)**

Staff Resource: TJ McCourt, Parks, 996-6079, [thomas.mccourt@raleighnc.gov](mailto:thomas.mccourt@raleighnc.gov)

During the meeting Council discussed district demographics and issues of equitable access to parks and greenways. In response to the discussion and questions, staff is providing an overview of the Neighborhood and Community Connection program and demographic data for comparing the distribution of parks, open space, and greenway trails across council districts. Three separate equity lenses are applied to this comparison:

1. Social Equity, using the Community Vulnerability Index developed by the Wake County Department of Human Services to identify communities most vulnerable to negative health outcomes.
2. Economic Equity, comparing access to parks and greenways for Low-Income Neighborhoods relative to the general population.
3. Racial Equity, comparing access to parks and greenways for BIPOC population relative to white population.

Included with the *Update* materials is a staff memorandum which addresses this information.

(Attachment)

**Railroad Quiet Zones (Mayor Baldwin)**

*Staff Resource: Michael Moore, Transportation, 996-3030, [michael.moore@raleighnc.gov](mailto:michael.moore@raleighnc.gov)*

During the meeting Mayor Baldwin reported on a recent meeting that she had attended with the West Condominiums Homeowner's Association and requested additional information regarding the requirements to create railroad quiet zones.

A railroad quiet zone is a section of track with roadway crossings where railroads are directed to cease the practice of sounding horns when approaching the crossings; these crossings are usually modified with additional safety features to mitigate the risks of train/vehicle/pedestrian crashes. Staff prepared a memorandum included with the Update materials which outlines the process at a high level for establishing quiet zones, background on the Quiet Zone Feasibility Assessment conducted in 2012, and potential next steps should Council be interested in additional action.

*(Attachment)*

## Follow Up from the November 16 City Council Meeting

**GoRaleigh Midtown to Downtown Shuttle (Mayor Baldwin)**

*Staff Resource: David Eatman, Transportation - Transit, 996-4040, [david.eatman@raleighnc.gov](mailto:david.eatman@raleighnc.gov)*

During the meeting staff presented options pursuant to a prior request from Council to provide express transit service between Midtown and Downtown. The proposed route and service would provide stops at the Raleigh Convention Center and the State Museum complex and would operate non-stop to Wake Forest Road and St Albans Drive near Duke Raleigh Hospital and then on to Midtown where additional hotels would be served. As outlined, the express service would run seven days per week begin from 7 a.m. to 9 p.m.

Following the presentation Council made several suggestions for staff to further study option, including microtransit options, added frequency during peak travel periods and additional fleet options. Council requested staff to return with the additional options during the December 7 City Council meeting.

Staff is in the process of studying the proposed options but will require additional time to vet options with various vendors. Staff plans to return to Council with an updated presentation in January 2022.

*(No attachment)*

**Urban Heat Island Mapping Project (Council Member Cox)**

*Staff Resource: Megan Anderson, Office of Sustainability, 996-4658, [megan.anderson@raleighnc.gov](mailto:megan.anderson@raleighnc.gov)*

During the meeting Council Member Cox indicated he has been contacted by constituents and requested an update on the Urban Heat Island Mapping project. The following is a brief overview and an update on the current status of the project.

**Overview**

As previously reported in *Manager's Updates* (Issue 2021-15), and [\(Issue 2021-27\)](#), Raleigh joined with the National Oceanographic and Atmospheric Association (NOAA), the County of Durham, the NC Climate Office, NC Museum of Life and Science, NC Museum of Natural Sciences, Activate Good, and others to map the hottest parts of the city as part of the [Urban Heat Island Mapping project](#) during summer 2021. The urban

heat island project supports the Raleigh [Community Climate Action Plan](#) as well as two initiatives in the adopted [Strategic Plan](#): one focused on mitigating urban heat islands (Growth and Natural Resources 3.4), and another on environmental justice mapping (Growth and Natural Resources 3.1).

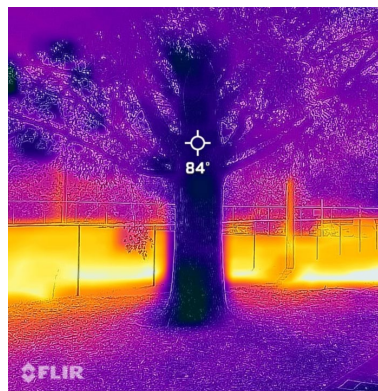
The data from this project will help Raleigh identify areas where heat is experienced most strongly by community members. The data was collected by volunteers driving, cycling, and walking routes. Volunteers began and ended their routes at Chavis Park and Kiwanis Park. Volunteers used mounted heat sensors, pocket sensors and FLIR infrared cameras (see image below) that collected the data needed to create the future mapping of Raleigh's heat islands. The routes were spread across the city and take into account different land uses, tree cover, community landmarks, and vulnerable community locations. Between Raleigh and Durham, over 150 community volunteers joined this citizen science project. The project was also covered by [local](#) and [national](#) press.

### Update

NOAA and CAPA Strategies (Climate Adaptation Planning Analytics) work together as a part of a Public-Private Partnership to support cities across the U.S. in this heat mapping project, including providing the data and mapping from the raw data cities collect. Originally, the participating cities expected to receive their data and mapping back in September but there were delays in CAPA Strategies processing all of the data that was received from all the cities. Our Raleigh and Durham partners just received the data files the last week of November. City staff are now working with our partners to process the information and provide an update to the community. Information about the project, including the data and mapping, will be shared through the City and partner websites.

Staff from Sustainability and cross departmental teams involved in the Strategic Plan initiatives (mentioned above) will be evaluating options for cross-departmental planning approaches to mitigate urban heat island impacts to community members most affected by heat. Staff will also continue to work with our external partners to identify opportunities for mitigation, education, and outreach in the short and long term. The City and partners will also use the colder months to plan for education and outreach that can be pushed out as the community is directly experiencing the effects of heat.

The photo below illustrates heat temperature variances, and was captured at Chavis Park during the urban heat island data collection day.



*(No attachment)*



## Weekly Events Digest

Friday, December 3 – Thursday, December 9

City of Raleigh Office of Emergency Management and Special Events  
[specialevents@raleighnc.gov](mailto:specialevents@raleighnc.gov) | 919-996-2200 | [raleighnc.gov/special-events-office](http://raleighnc.gov/special-events-office)

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### Permitted Special Events

#### [Morning Times First Friday Market Series](#)

Hargett Street

Friday, December 3

Event Time: 7:00pm - 11:00pm

Associated Road Closures: E. Hargett Street between Fayetteville Street and S. Wilmington Street will be closed from 6:00pm until 11:59pm.

#### [Nights of Lights](#)

Dorothea Dix Park

Friday, December 3 through Friday, December 24

Event Time: 6:00pm - 10:00pm

Associated Road Closures: Dix Park is open to visitors during the day, dawn until dusk. All park entrances close by 5:45pm during all WRAL Nights of Lights event dates.

#### [Illuminate Art Walk](#)

Downtown Raleigh

Friday, December 3 – Friday, January 7

Event Times: 5:00pm - Midnight daily from 12-3-21 through 1-7-22

Associated Road Closures: No roads will be closed for the installations. Market Plaza will be used from 8:00am on 11-29-21 until 5:00pm on 1-15-22. The off-street, east-side portion of City Plaza will be used from 9:00am on 12-1-21 until 11:00pm on 1-6-22.

#### [Raleigh Holiday Half Marathon](#)

Raleigh Boulevard, Anderson Point Park, & Greenway

Saturday, December 4

Event Time: 8:00am - 12:00pm

Associated Road Closures: Crabtree Boulevard between Capital Boulevard and N. Raleigh Boulevard will be closed from 7:30am until 8:10am, and N. Raleigh Boulevard between Yonkers Road and Barksdale Drive will be closed from 7:50am until 8:10am to facilitate the start of the race. Crabtree Creek Trail will be used from 8:00am until 11:30am. [View route here](#) for more details.

#### [Jingle Bell Run](#)

Dorothea Dix Park

Saturday, December 4

Event Time: 9:00am - 12:30pm

Associated Road Closures: Cranmer Drive and Palmer Drive between Picot Drive and Cranmer Drive will be closed, and Harvey Hill will be used from 6:00am until 1:30pm. The 5K route will be closed from 9:50am until 12:00pm. [View route here](#) for more details.

### Other Events This Weekend

#### [First Friday Raleigh](#)

Friday, December 3

Downtown Raleigh

#### [Merry Moore Market](#)

Friday, December 3 & Saturday, December 4

Moore Square

**Brandenburg Concerto No. 3 – North Carolina Symphony**

Friday, December 3 & Saturday, December 4  
Meymandi Concert Hall

**The Rink presented by UNC Health**

Friday, December 3 – Saturday, January 1  
Red Hat Amphitheater

**Magic of Lights**

Friday, December 3 – Sunday, January 2  
Coastal Credit Union Music Park at Walnut Creek

**Holidays with the Popes**

Saturday, December 4 & Sunday, December 5  
Pope House Museum

**Nutcracker with a Twist presented by DanceArt Studio**

Saturday, December 4  
Memorial Auditorium

**NCHSAA Invitational Cheerleading Championships**

Saturday, December 4  
Raleigh Convention Center

**NC State vs. Louisville**

Saturday, December 4  
PNC Arena

**Hurricanes vs. Sabres**

Saturday, December 4  
PNC Arena

**JAMfest – Raleigh – Classic**

Sunday, December 5  
Raleigh Convention Center

**Boylan Heights Art Walk**

Sunday, December 5  
Boylan Heights

**Tamela Mann and Ernest Pugh - A Night of Healing Gospel Concert**

Sunday, December 5  
Memorial Auditorium

## **Public Resources**

**Pilot Text Alert Program**: Sometimes spontaneous events happen downtown and in other areas that could affect local businesses. If you'd like to receive notifications when those events happen, including unpermitted ones, sign up for text alerts.

**Event Feedback Form**: Tell us what you think about Raleigh events! We welcome citizen and participant feedback and encourage you to provide comments or concerns about any events regulated by the Office of Emergency Management and Special Events. We will use this helpful information in future planning.

## Weekly Events Digest

Friday, December 3 – Thursday, December 9

City of Raleigh Office of Emergency Management and Special Events  
[specialevents@raleighnc.gov](mailto:specialevents@raleighnc.gov) | 919-996-2200 | [raleighnc.gov/special-events-office](http://raleighnc.gov/special-events-office)

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**Road Closure and Road Race Map**: A resource providing current information on street closures in Raleigh.

**Online Events Calendar**: View all currently scheduled events that impact City streets, public plazas, and Dorothea Dix Park.

# Council Member Follow Up

To	Marchell Adams-David, City Manager
Thru	Oscar Carmona, Director
From	TJ McCourt, Planning Supervisor
Department	Parks, Recreation and Cultural Resources
Date	December 3, 2021
Subject	Council Follow-up Item: November 2, 2021 Meeting Neighborhood & Community Connections to Parks

At the November 2, 2021 meeting of the City Council, Council Member Cox discussed district demographics and issues of equitable access to parks and greenways. Council Member Branch suggested staff could look at the issue of demographics and equitable access to parks and trails for all council districts through a lens of social equity and provide a report to Council.

This memo provides data that can be used to compare the distribution of parks, open space, and greenway trails across council districts. Three separate equity lenses are applied to this comparison:

1. *Social Equity*, using the Community Vulnerability Index developed by the Wake County Department of Human Services to identify communities most vulnerable to negative health outcomes.
2. *Economic Equity*, comparing access to parks and greenways for Low-Income Neighborhoods<sup>1</sup> relative to the general population;
3. *Racial Equity*, comparing access to parks and greenways for BIPOC population<sup>2</sup> relative to white population<sup>3</sup>; and

A more thorough and comprehensive evaluation of park system equity will be included in an upcoming Parks, Recreation and Cultural Resources (PRCR) System Plan Update. The current PRCR System Plan was adopted in 2014.

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<sup>1</sup> *Low-Income Neighborhoods* – As defined by the Trust for Public Land: "Low Income Neighborhoods" are the highest quintile (top 20%) of all Block Groups in the City as measured by percent of households earning less than 75% of the area median income.

<sup>2</sup> *BIPOC Population* - As defined by the Trust for Public Land: "BIPOC" Population ("Black, Indigenous, and People of Color") reflects the total population identifying as any of the Census-designated race/ethnicity groups including Black, Hispanic, Indigenous and Native American, Asian Americans, Pacific Islanders, multiple races, and other communities of color based on 2020 U.S. Census data provided by ESRI.

<sup>3</sup> *White Population* - Reflects the total population identifying as White, Non-Hispanic based on 2020 U.S. Census data provided by ESRI.



## **Social Equity: Council District Comparison Using the Community Vulnerability Index**

There are many different dimensions to evaluating equity within a community or a program area. One particular equity metric employed to prioritize capital projects for the Parks, Recreation and Cultural Resources Department is the [Community Vulnerability Index](#) developed by the Wake County Human Services Department.

This index is based on socioeconomic and demographic indicators that correlate with high vulnerability to negative mental and physical health outcomes such as heart disease, obesity, chronic stress, and depression—health outcomes which can be mitigated with improved access to parks and recreation opportunities.

Map 1 (p.3) and the accompanying Equity Information Sheet (p.3) describe the specific demographic factors measured by the Community Vulnerability Index and illustrate how this index can be used to identify high-priority areas for investment through a geospatial analysis.

*Table 1* (p.4) compares the percentage of population within each district that falls into five levels of Community Vulnerability. Based on the Community Vulnerability Index, all Census Block Groups within the City of Raleigh were scored on a 0 – 100 scale and sorted into five quantiles.

The highest quantile represents the top 20% most vulnerable block groups—those with the highest concentrations of unemployment, low educational attainment, age dependency, housing vacancy, and poverty. These block groups received higher priority scores between 80 – 100.

The lowest quantile represents the 20% least vulnerable block groups—areas with the city's lowest rates of unemployment, poverty, age dependency, etc. These block groups received lower priority scores between 0 – 20.



Raleigh

# Equity Information Sheet

**Equity Priority** can be determined by analyzing five key indicators of community health and well-being, as defined by Wake County Human Services' *Community Vulnerability Index*:



**1. Unemployment:** Population age 16 and over who are unemployed in the civilian labor force;



**2. Low Educational Attainment:** Population over age 25 who have less than a high school diploma;



**3. Age Dependency:** Population under the age of 18 and over the age of 64 combined;



**4. Housing Vacancy:** The total number of vacant or unoccupied housing units in a block group;



**5. Poverty Rate:** The population living below the federal poverty threshold in Wake County;

Communities exhibiting a high concentration of these five demographic and socioeconomic indicators are more likely to experience negative health outcomes such as heart disease, obesity, chronic stress, and depression—outcomes which can be mitigated with better access to high-quality open spaces, outdoor recreation, and safe places to play and exercise.

Prioritizing investments in these communities helps ensure that PRCR sites, facilities, and programs are more accessible to the communities that will benefit most from these public resources.

## Map 1: Community Vulnerability Index Priority Scores

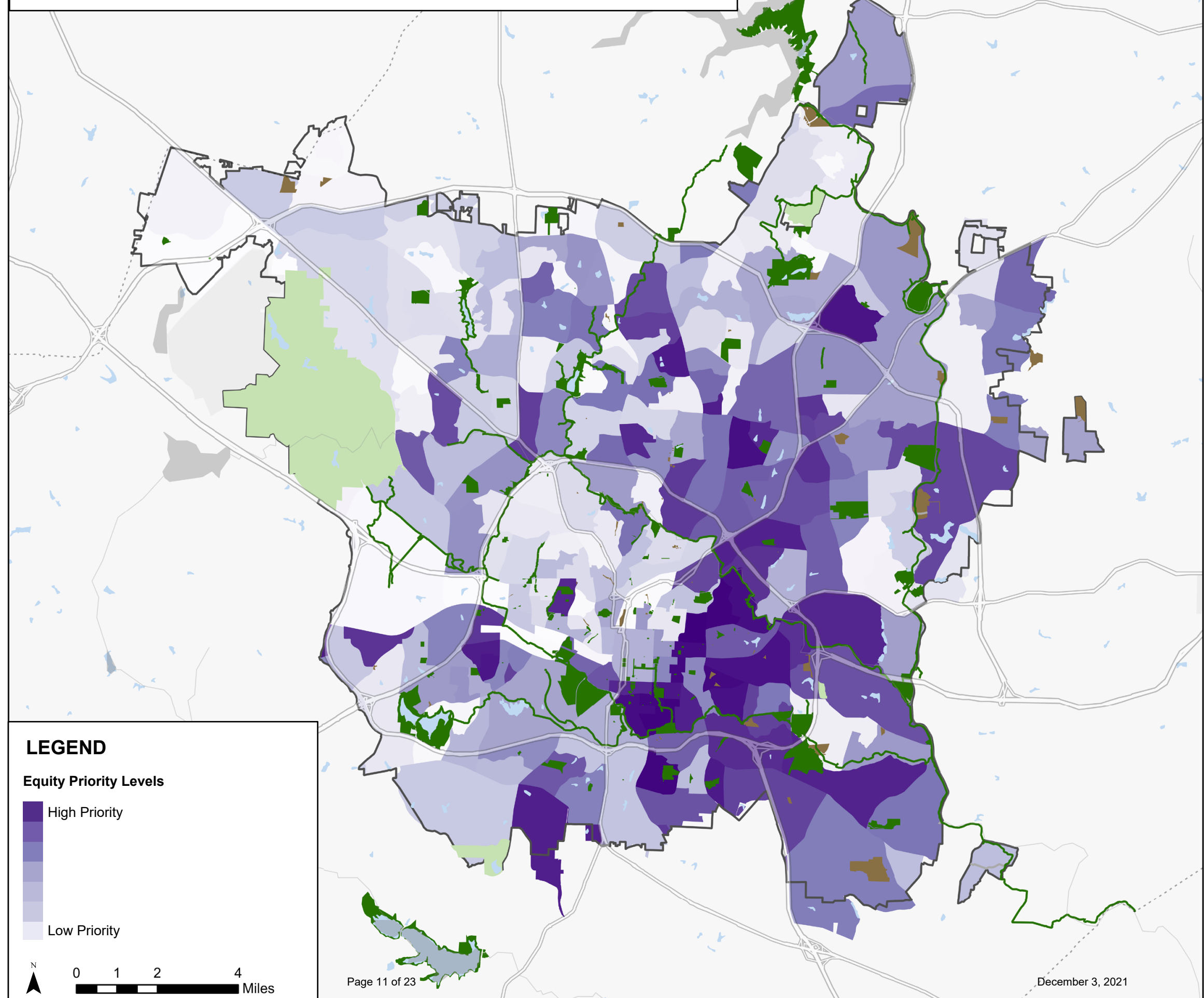
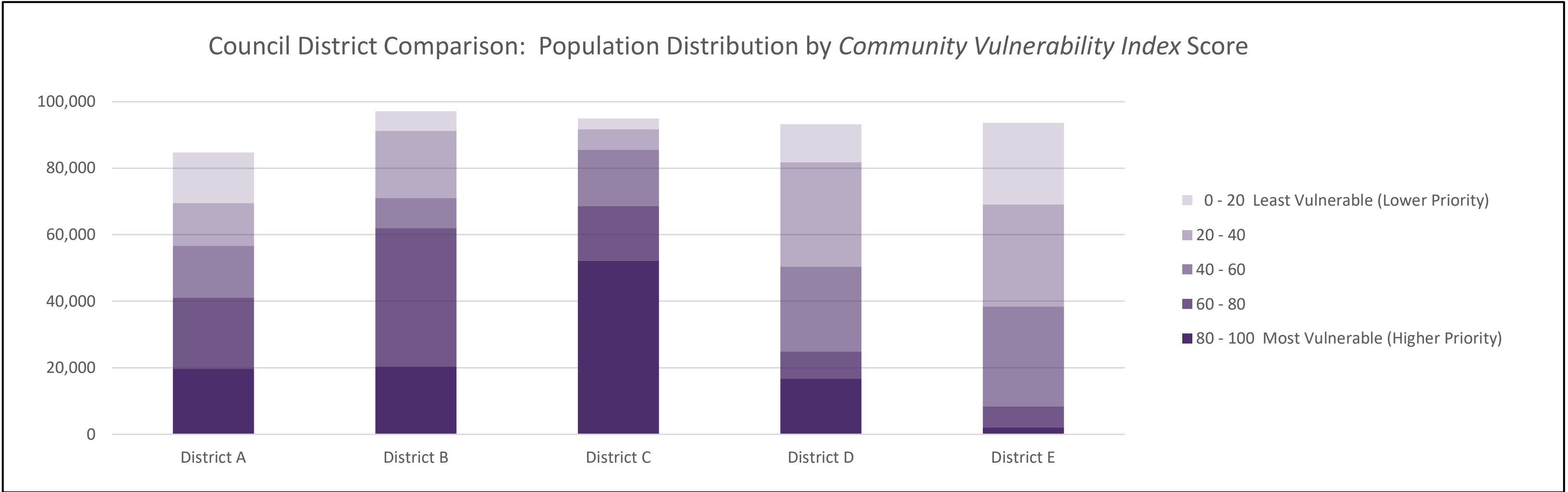


Table 1: Community Vulnerability Index		District A		District B		District C		District D		District E	
		(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
	80 - 100 <i>Most Vulnerable</i> (Higher Priority)	19,719	23%	20,393	21%	52,099	55%	16,708	18%	2,014	2%
	60 - 80	21,372	25%	41,573	43%	16,439	17%	8,233	9%	6,360	7%
	40 - 60	15,559	18%	9,060	9%	17,009	18%	25,388	27%	30,020	32%
	20 - 40	12,872	15%	20,209	21%	6,103	6%	31,393	34%	30,647	33%
	0 - 20 <i>Least Vulnerable</i> (Lower Priority)	15,220	18%	5,875	6%	3,265	3%	11,515	12%	24,625	26%
	TOTAL POPULATION	84,742		97,110		94,915		93,236		93,665	



## **Economic Equity: Council District Comparison**

Economic equity is evaluated in this context based on park and greenway access for Low-Income Neighborhoods as defined by the Trust for Public Land<sup>4</sup>.

*Map 2* (p.6) identifies the location of Low-Income Neighborhoods within each Council District.

*Table 2* (p.7) provides a comparison of park & greenway access for the general population and the population of Low-Income Neighborhoods within each Council District.

In the City of Raleigh, the total population living within Low-Income Neighborhoods is 74,249 (16% of Raleigh's total population). There is wide variation in the percentage of population from each Council District that lives within a Low-Income Neighborhood. In Council Districts A and E, approximately 4-5% of the district population lives within a Low-Income Neighborhood, while in Council Districts C and D, approximately 29% of the district population lives within a Low-Income Neighborhood.

Across the city as a whole, 52% of people living in Low-Income Neighborhoods have 10-minute walk access to a park, compared with 36% of the general population. In most council districts, park access is better for Low-Income Neighborhoods as compared with park access for the general population. The Low-Income Neighborhoods in Council District B and C are relatively well-served with park access compared to the general population of those districts, with 67% (District B) and 69% (District C) of Low-Income Neighborhood populations living within a 10-minute walk of a park.

Greenway access for Low-Income Neighborhoods varies significantly between council districts. In particular, a very small percentage of the Low-Income Neighborhood population in District A (0%) and District B (5%) live within a 10-minute walk of a greenway trail. *Map 2* (p.6) illustrates why this is the case: In District A and District B, most Low-Income Neighborhoods are not located near any existing greenway trails (although these neighborhoods are served by parks such as Eastgate, Green Road, and Spring Forest).

Improving greenway access for these neighborhoods would require the construction of several miles of new greenway trails along currently undeveloped greenway corridors. Major greenway projects such as these will be identified in the Greenway Master Plan, but are beyond the scope of the Neighborhood & Community Connections Program. Staff will seek to identify opportunities to fund these proposed greenway projects through grants and other mechanisms outside of the N&CC Program.

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<sup>4</sup> *Low-Income Neighborhoods* – As defined by the Trust for Public Land: "Low Income Neighborhoods" are the highest quintile (top 20%) of all Block Groups in the City as measured by percent of households earning less than 75% of the area median income.



# Map 2: Low-Income Neighborhoods

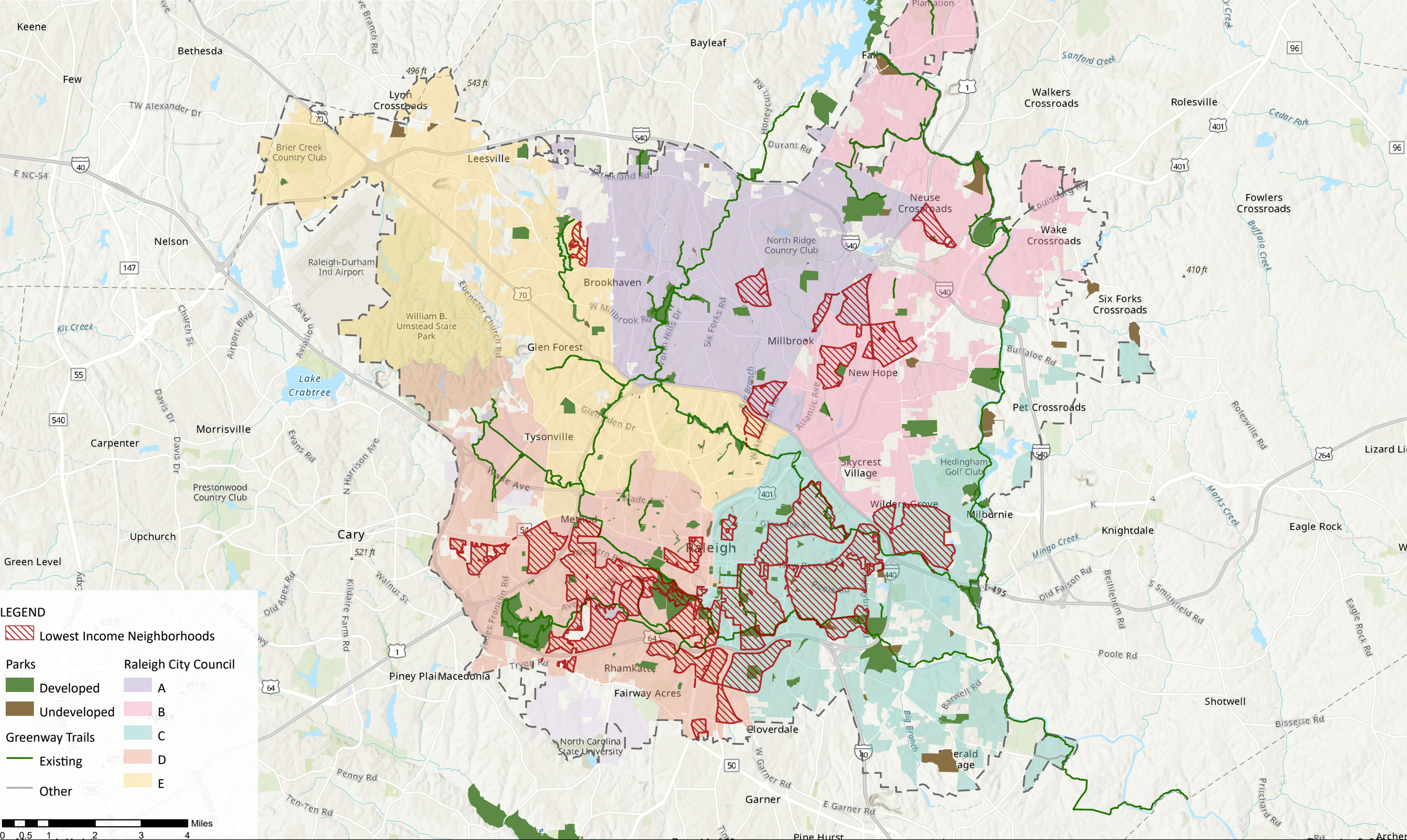




Table 2: Council District Comparison - Economic Equity			City of Raleigh	Council District				
				A	B	C	D	E
POPULATION	Total Population <sup>1</sup>	(#)	463,668	84,742	97,110	94,915	93,236	93,665
		(%)		18%	21%	20%	20%	20%
	Total Population w/in 10-min Walk of a Park	(#)	168,419	21,730	21,146	48,862	51,443	25,238
		(%)	36.3%	26%	22%	51%	55%	27%
	Total Population w/in 10-min Walk of a Greenway Trail	(#)	97,270	17,804	13,470	21,999	29,152	14,845
		(%)	21%	21%	14%	23%	31%	16%
ECONOMIC EQUITY	Population of Low-Income Neighborhoods <sup>2</sup>	(#)	74,249	4,601	11,347	27,800	26,961	3,540
		(%)	16%	5%	12%	29%	29%	4%
	Pop. of Low-Income Neighborhoods w/in 10-min Walk of a Park	(#)	38,423	1,996	7,563	19,113	8,575	1,176
		(%)	52%	43%	67%	69%	32%	33%
	Pop. of Low-Income Neighborhoods w/in 10-min Walk of a Greenway Trail	(#)	21,708	0	608	11,438	8,575	1,087
		(%)	29%	0%	5%	41%	32%	31%

<sup>1</sup> All population statistics are based on 2020 U.S. Census Data provided by ESRI at the Census Block and Census Block Group levels

<sup>2</sup> Low-Income Neighborhoods - As defined by the Trust for Public Land: "Low Income Neighborhoods" are the highest quintile (top 20%) of all Block Groups in the City as measured by percent of households earning less than 75% of the area median income.

## Racial Equity: Council District Comparison

Racial equity is evaluated in this context based on park and greenway access for BIPOC population<sup>5</sup> and white population<sup>6</sup> as defined by the Trust for Public Land.

*Map 3* (p.9) identifies the location of BIPOC Neighborhoods<sup>7</sup> within each Council District.

*Table 3* (p.10) provides a comparison of park & greenway access for the general population, BIPOC population, and white population within each Council District.

In the City of Raleigh, the total BIPOC Population is 216,884 (47% of Raleigh's total population). Across the city as a whole, approximately 36% of the total population lives within a 10-minute walk of a park. This figure is nearly identical when evaluating the percentage of people within a 10-minute walk of a park separately for the BIPOC population (36.2%) and the white population (36.4%).

However, when evaluating greenway access across the city through a racial equity lens, a lower percentage of the BIPOC population (18%) lives within a 10-minute walk of a greenway trail as compared with the white population (24% of which lives within a 10-minute walk of a greenway trail).

Efforts to improve greenway access with a focus on racial equity should prioritize projects that will serve the BIPOC Neighborhoods identified in *Map 3* (p.9). Within the context of the Neighborhood & Community Connections Program in particular, it should be noted that the vast majority of BIPOC Neighborhoods within proximity to existing greenway trails are located in Council District C, thus it is logical that a majority of the opportunities for N&CC greenway projects will be located within that district.

Most of the BIPOC Neighborhoods in District A and District B are not located near any existing greenway trails. Improving greenway access for these neighborhoods would require the construction of several miles of new greenway trails along currently undeveloped greenway corridors. Major greenway projects such as these will be identified in the Greenway Master Plan, but are beyond the scope of the N&CC program in particular, which focuses on smaller-scale walkability improvements.

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<sup>5</sup> *BIPOC Population* – See: Footnote 2, p.1

<sup>6</sup> *White Population* – See: Footnote 3, p.1

<sup>7</sup> BIPOC Neighborhood - As defined by the Trust for Public Land: "BIPOC Neighborhoods" are the highest quintile (top 20%) of all Block Groups in the City as measured by percent of population identifying as any of the Census-designated race/ethnicity groups including Black, Hispanic, Indigenous and Native American, Asian Americans, Pacific Islanders, multiple races, and other communities of color based on 2020 U.S. Census data provided by ESRI..



### Map 3: BIPOC Neighborhoods

**LEGEND**

- BIPOC Neighborhoods
- Parks
  - Developed
  - Undeveloped
- Greenway Trails
  - Existing
  - Other
- Raleigh City Council
  - A
  - B
  - C
  - D
  - E

0 0.5 1 2 3 4 Miles



Table 3: Council District Comparison - Racial Equity			City of Raleigh	Council District				
		A		B	C	D	E	
POPULATION	Total Population <sup>1</sup>	(#)	463,668	84,742	97,110	94,915	93,236	93,665
		(%)		18%	21%	20%	20%	20%
	Total Population w/in 10-min Walk of a Park	(#)	168,419	21,730	21,146	48,862	51,443	25,238
		(%)	36.3%	26%	22%	51%	55%	27%
	Total Population w/in 10-min Walk of a Greenway Trail	(#)	97,270	17,804	13,470	21,999	29,152	14,845
		(%)	21%	21%	14%	23%	31%	16%
RACIAL EQUITY	BIPOC Population <sup>3</sup>	(#)	216,884	26,056	57,995	69,729	34,661	28,443
		(%)	47%	31%	60%	73%	37%	30%
	BIPOC Population w/in 10-min Walk of a Park	(#)	78,568	5,835	15,646	33,673	17,924	5,490
		(%)	36.2%	22%	27%	48%	52%	19%
	BIPOC Population w/in 10-min Walk of a Greenway Trail	(#)	37,974	5,228	5,559	14,241	9,476	3,470
		(%)	18%	20%	10%	20%	27%	12%
	White Population <sup>4</sup>	(#)	246,784	58,686	39,115	25,186	58,575	65,222
		(%)	53%	69%	40%	27%	63%	70%
	White Population w/in 10-min Walk of a Park	(#)	89,851	15,895	5,500	15,189	33,519	19,748
		(%)	36.4%	27%	14%	60%	57%	30%
	White Population w/in 10-min Walk of a Greenway Trail	(#)	59,296	12,576	7,911	7,758	19,676	11,375
		(%)	24%	21%	20%	31%	34%	17%

<sup>3</sup> BIPOC Population - As defined by the Trust for Public Land: "BIPOC" Population ("Black, Indigenous, and People of Color") reflects the total population identifying as any of the Census-designated race/ethnicity groups including Black, Hispanic, Indigenous and Native American, Asian Americans, Pacific Islanders, multiple races, and other communities of color.

<sup>4</sup> White Population - Reflects the total population identifying as White, Non-Hispanic

## Neighborhood & Community Connections Program Methodology

The Neighborhood & Community Connections (N&CC) Program is an effort to identify, prioritize, and build new walkable connections to parks and greenways. Providing safe, convenient, walkable access to parks and recreation opportunities within a 10-minute walk of home is a top priority for the City's goal of building a more equitable park system.

Neighborhoods prioritized for investment through this program are identified using the [Community Vulnerability Index](#). This index is based on socioeconomic and demographic indicators that correlate with high vulnerability to negative mental and physical health outcomes such as heart disease, obesity, chronic stress, and depression—health outcomes which can be mitigated with improved access to parks and recreation opportunities.

Potential N&CC projects were only considered for segments of greenway trail where there is a gap of more than a half-mile between existing access points, because addressing these major gaps in access is a higher priority than providing improved access for neighborhoods that are already at least moderately well served. For example, most of the Neuse River Trail in northeast Raleigh passes through very low-vulnerability neighborhoods, and access points along this stretch of trail are seldom more than ½ mile apart. Opportunities for further improving greenway access in these neighborhoods<sup>8</sup> will continue to be considered for future implementation, but were not prioritized at this time based on the specific equity and access criteria used in the N&CC Program.

The N&CC Program is specifically designed to provide short, walkable connections to existing resources. Many of Raleigh's most vulnerable neighborhoods would benefit from increased investment in parks and greenways, and access for these areas will be improved with other projects. However, the N&CC Program is narrowly tailored to addressing access issues that can be improved through small-scale trail construction projects, typically well under a half-mile in total length. Expanding greenway trail access to the high-vulnerability block groups along the Capital Boulevard corridor, for example, would require major greenway trail construction that is beyond the limited scope of the N&CC Program.

The upcoming Greenway Master Plan update will identify major projects to improve greenway access in these areas. Staff will continue to pursue funding opportunities for these proposed greenway projects through grants and other mechanisms outside of the N&CC Program, including the City development process and public private partnerships.

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<sup>8</sup> A potential N&CC project to improve greenway access for the BIPOC Neighborhood north of Buffaloe Road Athletic Park in District B (see: *Map 3*, p.9) was originally identified, but ultimately removed from consideration for this round of funding due to conflicts with an upcoming sewer line replacement project by Raleigh Water. Efforts to improve greenway access in this area will be considered in the future following the completion of the sewer project.





Raleigh

## MEMO

TO: Marchell Adams-David, City Manager

FROM: Michael R. Moore, Director

DEPARTMENT: Transportation

DATE: November 19, 2021

SUBJECT: Railroad Quiet Zones

At the November 2, 2021 City Council meeting, Mayor Baldwin reported on a recent meeting that she had attended with the West Condominiums Homeowner's Association and requested additional information regarding the requirements to create railroad quiet zones.

### **Background**

Since the beginning, trains have sounded horns or whistles as a safety precaution in advance of grade crossings and under other circumstances, and through the last century, nearly every state enacted law mandating this requirement. Some states also allowed local communities to institute local nighttime "whistle bans."

In the 1990's, Congress directed the Federal Railroad Administration (FRA) to issue regulations on the sounding of train horns at grade crossings, partially in response to an increase in collisions at grade crossings where nighttime whistle bans had been put into place. In 2005, FRA's "Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings," or "Train Horn Rule" (49 CFR Part 222), took effect. Under the regulation, locomotive engineers must sound train horns in advance of all public grade crossings, with certain exceptions. FRA amended the Train Horn Rule in August 2006.

The Train Horn Rule preempts all state and local laws dealing with bans on the sounding of train horns at crossings. However, the regulation also provides an option for communities to silence train horns in an area by establishing federally designated "quiet zones."

### **What is a quiet zone?**

A railroad quiet zone is a section of track at least ½ mile in length with grade crossings where railroads are directed to cease the practice of sounding horns when approaching road grade crossings. (Train horns may still be sounded in emergencies, or to comply with other regulations or railroad operating rules.) Communities that want to establish a quiet zone are first required to mitigate the additional risks created by the absence of the train horn.

There are two categories of quiet zones – "pre-rule" quiet zones that existed prior to the regulation, and "new" quiet zones that are established under the current regulations. Additionally, both pre-rule and new quiet zones can be "partial" quiet zones where train horns are silenced for a defined period during the day, usually overnight hours.

Subject to FRA approval, a municipality can establish a quiet zone if the Quiet Zone Risk Index (QZRI) is at, or below, the Nationwide Significant Risk Threshold (NSRT). The QZRI is a complex calculation weighing a variety of crossing safety factors that is used to assess the average severity weighted

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Manager's Update

risks at rail crossings within a quiet zone. The NSRT reflects a measure of the average severity weighted risk, calculated on a nationwide basis, which reflects the average level of risk to the public at public grade crossings that are equipped with flashing lights and gates and at which locomotive horns are sounded. The FRA developed this index to serve as a threshold of permissible risk for quiet zones created under this rule.

A crossing QZRI may already be at, or below, the NSRT and could qualify to become a quiet zone. If a crossing's QZRI exceeds the NSRT, the risks could be mitigated with the addition of Supplemental Safety Measures (SSM's) and the QZRI reduced to an approvable level at or below the NSRT. SSM's can include several safety measures, including:

- Closure of the crossing,
- Grade separating the crossing
- The addition of a four-quadrant gate system,
- The addition of channelization devices with gates, and
- The addition of medians with gates.

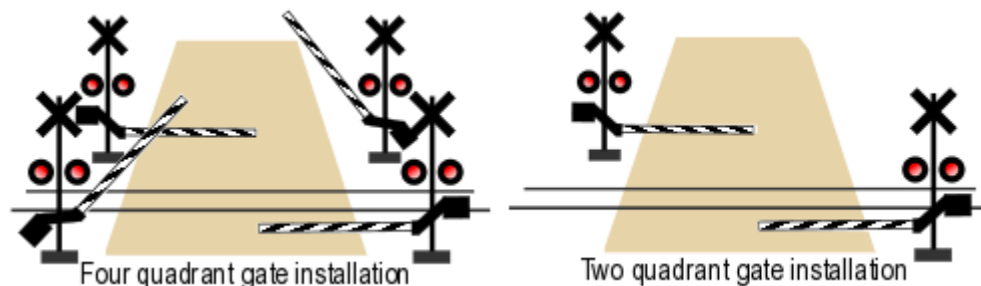
Train horn impacts can also be potentially reduced at crossings through the addition of wayside horns. A wayside horn may be installed at grade crossings that have flashing lights, gates, and similar safety measures. Wayside horns are located at the crossing and sound when the train approaches and warning devices are activated. Sound is directed down the roadway, which greatly reduces the noise footprint of the audible warning. The use of wayside horns is not the same as establishing a quiet zone.

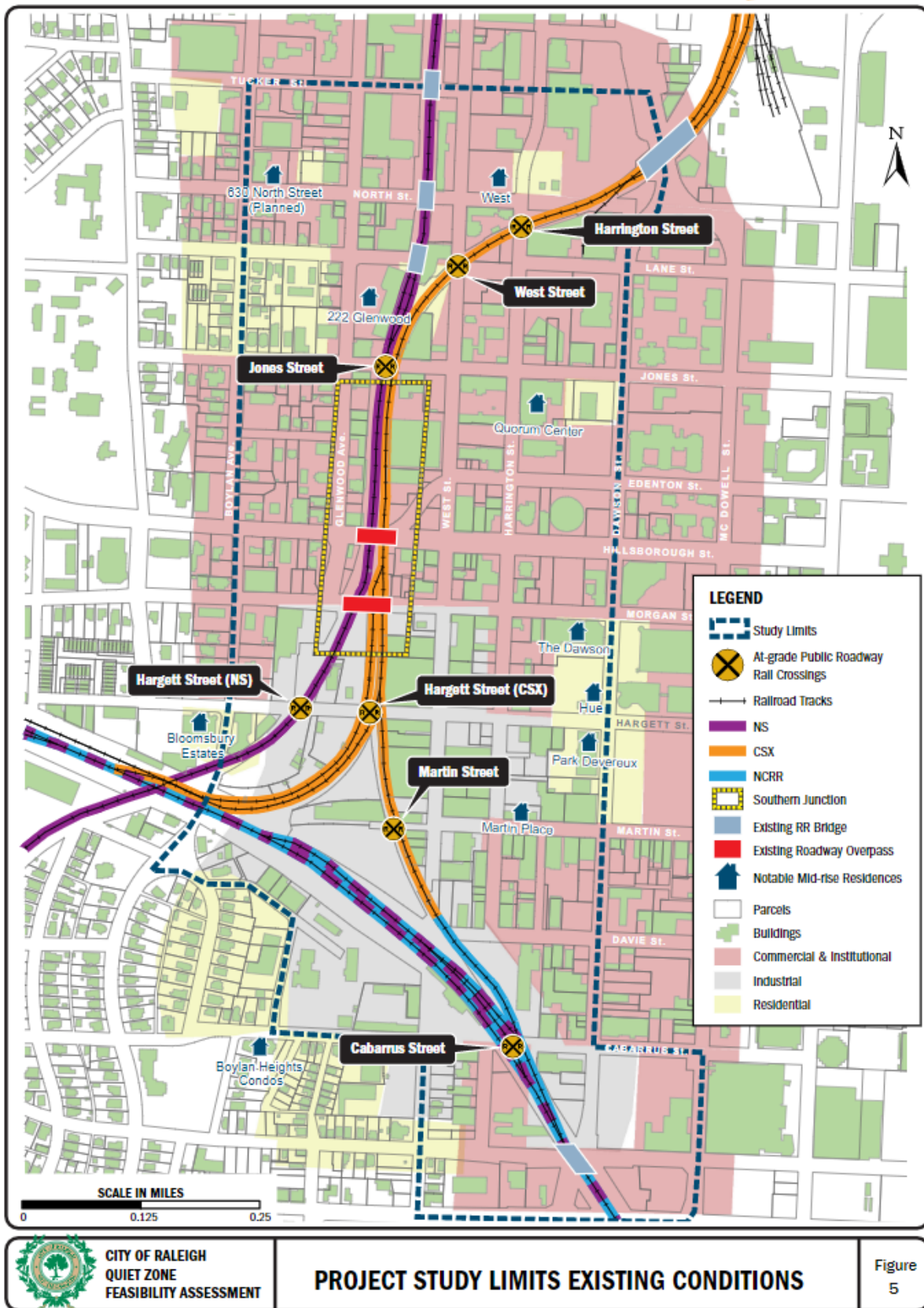
### **Application to the Grade Crossings in Downtown Raleigh**

There are several grade crossings in the Downtown and Glenwood South area. These locations include N. Harrington Street, N. West Street, W. Jones Street, two locations on W. Hargett Street, and W. Cabarrus Street. (See map.) These crossings would all be potentially included in a quiet zone evaluation.

In 2012, the City of Raleigh commissioned Parsons Brinckerhoff, a national consulting engineering firm, to prepare a "Quiet Zone Feasibility Assessment." The study analyzed all the crossings and found the existing risk index for the corridor to exceed the thresholds to establish a quiet zone, but the potential for federal approval was greatly improved with the addition of SSM's. (The study also analyzed a grade crossing on Martin Street that has since been grade separated by the Raleigh Union Station project.)

The study produced three alternatives with varying types of SSM's. Alternatives principally relied on four-quadrant gates (four quadrant gates are compared against the typical two quadrant gates below), street closures at the grade crossings, or a combination of the two, to achieve quiet zone safety. Alternates ranged in estimated cost between approximately \$1.4M to \$3.6M in 2012 dollars. These costs would be borne by the City of Raleigh. There are potentially federal railroad grants available, but there is usually considerable competition for these grants.





It's worth noting that the study's Alternative 3 recommended street crossing closures at the two W. Hargett Street crossings and at the W. Jones Street crossing. These closures would also be necessary if the Southeast High Speed Rail project moves to implementation. Also, please note that the establishment of a quiet zone in this corridor would not remove the train horn requirement for trains entering Raleigh Union Station.

If City Council wishes to address this request further, Transportation would recommend we first secure assistance from an engineering consultant and update the 2012 Feasibility Study. There has been considerable change in Downtown Raleigh, Glenwood South, the Warehouse District, and the Smoky Hollow area. It's important that any changes in train, traffic, and pedestrian activity be accurately accounted for in new risk assessments and planning for implementation.